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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,392	11/14/2005	Theo Burchard	2732-166	7025
6449 7590 05/17/2010 ROTHWELL, FIGG, ERNST & MANBECK, P.C. 1425 K STREET, N.W. SUITE 800 WASHINGTON, DC 20005				
EXAMINER CORDRAY, DENNIS R				
ART UNIT 1791		PAPER NUMBER		
NOTIFICATION DATE 05/17/2010		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary

Application No.

10/528,392

Applicant(s)

BURCHARD ET AL.

Examiner

DENNIS CORDRAY

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 2/12/2010 have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues that Patzold et al relates to cards such as a credit card having photographic information, suggests that the information carrier has a certain thickness, that conventional photographic paper has a weight of approximately 120 gsm, that the foil thickness depends on the required document stiffness, and provides no suggestion of the look and feel of paper. Applicants further argue that the documents of Patzold et al and Tamagawa et al are structurally different, with those of Tamagawa et al comprising a paper support layer coated with polyethylene layers and then having a photosensitive gelatin layer applied to the coated support.

Patzold et al relates generally to a tamper-proof document consisting of a information carrier laminated with plastic foils on one or both sides by means of an adhesive, and characterized in that the information carrier comprises at least one gelatine layer carrying a photographic silver or dye image (col 1, lines 4, 5 and 61-68). The fact that credit cards are discussed in the background section or that a conventional

photographic support weighing approximately 120 gsm is used in the examples does not limit the disclosure to the exemplary embodiments.

Patzold et al also discloses that the information carrier will generally consist of a photographic material having a light-sensitive silver halide emulsion layer on a conventional layer support. The layer support of the information carrier can be paper, polyolefine laminated paper, etc (col 3, lines 30-45). Patzold et al thus teaches that a polyethylene coated paper support as disclosed by Tamagawa et al is a suitable layer support, on which is applied a light-sensitive silver halide emulsion layer (gelatine layer). One of ordinary skill in the art would have found it obvious to use the layer support of Tamagawa et al, which has a weight overlaying the claimed weight, as a suitable photographic paper in the invention of Patzold et al with a reasonable expectation of success. As Applicant has recognized, the foil thickness is a result effective variable relating to the stiffness of the document (Remarks, p 7, top paragraph) and one of ordinary skill in the art would have found it obvious to adjust the thickness depending on the document to be produced.

The references Howland et al and Tooth et al teach various security features well known in the art to be used in security papers with plastic or film coatings as well as the use of multiple features. The references also teach that such security paper is used for banknotes, identification documents, checks, credit cards, etc. One of ordinary skill in the art would have found it obvious to use a combination of security features, the motivation being to make the paper more difficult to forge. One of ordinary skill in the

art would also have found it obvious to make banknotes or checks as typical end products for security papers.

The broader disclosure of Hoepfner et al relates to the production of any desired security documents and documents of value, and is not limited to plastic cards (p 1, par 2). Hoepfner et al also discloses multiple security features applied to different layers and the importance of having the features in accurate register with one another. Tooth et al also teaches multiple features in register with one another to form a more complex pattern, thus such a combination of features to form a combined information pattern is well known in the art and would have been obvious to one of ordinary skill with the motivation as set forth above (col 6, lines 10-14). Hoepfner et al discloses that extrusion and lamination processes allow accurate register of layers and thus their incorporated security features. As discussed above, one of ordinary skill in the art would have found it obvious to adjust the thickness of the layers depending on the document to be produced. Hoepfner et al discloses embossing as an optional process (p 2, par 24; p 3, pars 42 and 47).

Any paper based document, coated or not, can be folded or creased.

The Examiner is not completely clear what Applicants are looking for as evidence that using a water soluble adhesive would have been obvious as a laminating adhesive (see p 11, 2nd full paragraph). If Applicants are looking for evidence that a water soluble adhesive exists or that such adhesive can adhere a film to a paper substrate, then such evidence is to be found, for instance, in Boehm et al (US 5567276), which discloses that a variety of commercially available adhesives (e.g.-contact adhesives, water-soluble

adhesives, hot-melt adhesives) exists for bonding a carrier film to paper, the film made from paper, metal or any other suitable self-supporting material and having a width from a few mm to a few cm (col 5, lines 27; col 6, lines 4-7). Absent convincing evidence of unobvious results, one of ordinary skill in the art would have found it obvious to use a commercially available water soluble adhesive to adhere the film to the paper layer as a functionally equivalent option.

Regarding the arguments against Hoffman, the reference recites currency as one use for papers comprising polyamide fibers. Figures 1-3 indicate that the percentage of undrawn polyamide fibers used in the paper is a result effective variable. One of ordinary skill in the art would have found it obvious to optimize the percentage of polyamide fibers used to make a value document such as a banknote or check resistant to tearing during normal use but remain destructible if the foil is removed.

The outstanding rejections are maintained, but have been modified to address the new claims.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 3, 5, 8-10, 13, 24-26 and 30 are rejected under 35 U.S.C. 103(a) as unpatentable over Patzold et al (4455359) in view of Tamagawa et al (4830928).

Patzold et al discloses a tamper proof document comprising a photographic information carrier, the carrier comprising a paper or polyolefin laminated paper and

photographic emulsion layer. The carrier is laminated on both sides all over to a transparent plastic foil by means of an adhesive layer (Abs; col 1, lines 1-15 and 61-65; col 3, lines 31-50; col 4, lines 4-8; col 6, line 61 to col 7, line 2). The plastic foil has a thickness from 15 to 250 μm (col 4, lines 61-63), which overlays the claimed ranges. The document has security features in the foil and/or in the paper layer, such as printed images, writing, embossing, watermarks (in the paper layer), magnetically or optically readable data, etc. (col 4, lines 15-35). Any paper can be folded or creased and the foils on opposing sides of the paper are under different strains (one side under compressive strain and the other side under tensile strain) when the paper is folded or creased or, at least, different strains would have been obvious to one of ordinary skill in the art.

Patzold et al discloses that the document is intended to contain information relating to the owner and, in some embodiments, may be used for credit or cash free transactions, thus is a value document (col 1, lines 6-15). Alternatively, making a value document would at least have been obvious to one of ordinary skill in the art.

Patzold et al does not disclose the claimed paper layer weight.

Tamagawa et al discloses a photographic paper support comprising a base paper containing a cationic softening agent and a polyethylene coating on both sides of the paper and preferably comprising a surface sizing (Abs; col 2, lines 3-21). The support has improved surface smoothness and is free of troubles such as blackening and cockling. The base paper has a basis weight of 80-200 g/m^2 (col 3, lines 39-41).

The art of Patzold et al and the instant invention is analogous as pertaining to security papers and value documents. The art of Patzold et al and Tamagawa et al is analogous as pertaining to photographic papers. Patzold et al discloses a security or value document comprising a photographic paper. Tamagawa et al discloses an improved photographic paper. It would have been obvious to one of ordinary skill in the art to use a photographic paper having the claimed basis weight and having a softening agent in the product of Patzold et al in view of Tamagawa et al to obtain the advantages disclosed by Tamagawa et al.

3. Claims 2, 4, 6, 7, 14-16, 20-22 and 27-29 are rejected under 35 U.S.C. 103(a) as unpatentable over Patzold et al in view of Tamagawa et al and further in view of Howland et al (5868902) and Tooth et al (4462866) and as evidenced by Haylock (Paper, Its making, merchenting and usage).

The disclosures of Patzold et al and Tamagawa et al are used as above. Patzold et al also discloses a method step of laminating a plastic film to both surfaces of a paper all over (col 6, lines 30-32 and 61-68; col 7, lines 1 and 2).

Patzold et al and Tamagawa et al do not disclose that the paper layer is interrupted, the use of intaglio printing, the kind of fibers used in the paper, that the paper is produced on a papermaking machine, that the foil is printed after application, or that the document is a bank note or check.

Claims 2, 6, 7, 14, 21 and 27-29: Howland et al discloses a security paper comprising a plastic film applied to both surfaces and method of making the paper, the

method comprising producing the paper in a paper machine from natural and/or synthetic fibers, drying the paper and then coating the paper on both surfaces with a coating containing polyurethane. The coating forms a film, or thin layer or foil, that provides chemical and mechanical protection for the paper (Abs; col 2, lines 17-24; col 4, lines 1-7; col 4, line 28 to col 5, line 5; cols 5-9, Examples).

Howland discloses that the paper layer comprises a security feature, such as a watermark and/or embedded or windowed security thread which incorporates visual or covert security elements (col 4, lines 16-19). The paper layer is interrupted where the window occurs.

In some embodiments, the coating comprises an iridescent, phosphorescent or fluorescent pigment or magnetic particles as security features (col 3, lines 32-61). In other embodiments, a foil, hologram or kinogram is affixed to the paper after it is made and coated (applied to the film after application to the paper), either before or after printing (Claims 1, 16 and 17).

Howland does not disclose laminating the plastic foil to the paper.

Tooth et al discloses a security paper comprising a paper layer having a watermark and an embedded security thread visible in windows formed in the paper (Abs; col 3, lines 6-19). The security paper comprises a plastic film overlay covering the whole of one or more surfaces. The overlay can be a plastic film that is adhered to the paper by an adhesive (laminated) or an overlay applied as a liquid that subsequently forms a film adherent to the surface by evaporation of the solvent or polymerization and curing in situ (col 3, lines 28-56). Thus it is known in the art to apply preformed films or

foils (obviously self-supporting) to a security paper or to form the films from a liquid applied to the paper as functionally equivalent options.

The art of Patzold et al, Tamagawa et al , Howland et al, Tooth et al and the instant invention is analogous as pertaining to making security papers comprising a paper layer with a plastic foil layer on each side. It would have been obvious to one of ordinary skill in the art to make a paper layer on a papermaking machine from natural and/or synthetic fibers in the process and paper of Patzold et al in view of Tamagawa et al and further in view of Howland et al and Tooth et al as a typical papermaking process. Cotton would have been obvious to one of ordinary skill in the art as a typical source of natural annual fibers (if evidence is needed, see Haylock, p 22). Providing a window interrupting the paper layer in which a security element is visible would have been obvious as a well known security feature of such papers.

Claims 4, 15 and 16: Howland et al discloses printing the coated paper via intaglio printing (col 4, lines 53-54; col 5, lines 6-9; col 5, lines 61-62, Example 1). Although not explicitly disclosed, printing images, words and/or indicia by intaglio printing would have been obvious to one of ordinary skill in the art as functionally equivalent options for adding information to the paper.

Claims 20 and 22: Howland et al discloses that the paper can be a banknote, identification document, driving license, passport, etc. (col 5, lines 10-12). Tooth et al discloses that the paper can be a banknote, cheque, identity card, credit card, etc.(col 3, lines 62-66). Making a banknote would have been obvious as a typical end product of such security papers.

4. Claims 11, 12, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patzold et al in view of Tamagawa et al and further in view of Hoepfner et al (US 2002/0022112).

The disclosures of Patzold et al and Tamagawa et al are used as above. Patzold et al and Tamagawa et al do not disclose extrusion or cold lamination of a film or a water soluble adhesive. Patzold et al and Tamagawa et al also do not disclose that security features are in register with one another or form a combined information pattern.

Hoepfner et al discloses a multilayer security or value document and process for making, the process comprising printing a paper on one or both sides, then extruding a plastic film layer to one or both sides of the paper. The extruded film comprises laser active pigments that permit subsequent personalization with a laser. The paper thus coated can be printed and/or embossed with various additional security features, and further marked, engraved or perforated using a laser (Abs; p 1, pars 14 and 16; p 3, pars 40-45). The coated and printed papers can be coated with an adhesive and further laminated with an upper and lower covering film, the surface of which can be embossed and/or printed with security colors (p 3, pars 46-49). Heat is not required, thus the films are cold-laminated. The different layers have different properties, such as being doped, being sensitive to laser light, having integrated security features or materials, etc. (p 2, par 29).

Hoeppner et al discloses advantages of the extrusion and lamination processes that include accurate register of the various security features in the layers (p 1, par 13; p 2, pars 22-24; p 3, par 54). Hoeppner et al teaches that joining the layers in accurate register with one another is required in a security document. The security features in the layers thus form a combined information pattern.

Hoeppner et al discloses that the process can be used to produce value documents and other security papers. The carrier paper (paper layer) can comprise various security features, such as threads, holograms, etc. (p 1, par 4).

The art of Patzold et al, Tamagawa et al, Hoeppner et al and the instant invention is analogous as pertaining to the manufacture of multilayered security papers. Absent convincing evidence of unexpected results, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply a plastic layer to the paper layer of Patzold et al in view of Tamagawa et al and further in view of Hoeppner et al by extrusion or by cold lamination using an adhesive to provide accurately registered layers in which the security features are in register with, or complement, one another to form a combined information pattern. The motivation would have been to provide products consistent in appearance and easily identified but that are difficult to forge due to multiple security features. Absent convincing evidence of unexpected properties derived therefrom, it would have been obvious to use any laminating adhesive, including the claimed water-soluble adhesive, and have a reasonable expectation of success in achieving the laminated product.

5. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Patzold et al in view of Tamagawa et al and further in view of Hoffman (3489643).

The disclosures of Patzold et al and Tamagawa et al are used as above. Patzold et al and Tamagawa et al do not disclose polyamide fibers.

Hoffman discloses that long undrawn polyamide fibers incorporated into nonwoven papers improve tear strength, resistance to tear propagation, greater elongation to break and improved stretchability (Abs; col 1, lines 61-72; col 2, lines 1-3; col 4, lines 29-31 and 44-50). Papers so made can be used for photographic paper, bank notes, etc. (col 3, lines 25-27).

The art of Patzold et al, Tamagawa et al, Hoffman and the instant invention is analogous as pertaining to the manufacture of photographic papers. It would have been obvious to one of ordinary skill in the art at the time of the invention to use polyamide fibers in the paper layer of Patzold et al in view of Tamagawa et al and further in view of Hoffman to obtain the disclosed improved tear and stretchability properties.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS CORDRAY whose telephone number is (571)272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P. Griffin/

Application/Control Number: 10/528,392
Art Unit: 1791

Page 14

Supervisory Patent Examiner, Art
Unit 1791

/Dennis Cordray/
Examiner, Art Unit 1791